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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/538,351 | 03/29/2000 | Katherine H. Guo | 554-224 (Guo 3-3-2-22-2 | 6141 |

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| EXAMINER | |
|---|---|
| ENGLAND, DAVID E | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2143 | |

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/538,351 | GUO ET AL. | |
| | Examiner | Art Unit | |
| | David E. England | 2143 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1 and 5-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.



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## DETAILED ACTION

1. Claims 1 and 5 – 8 are presented for examination.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyal (6484199) in view of Hunter et al. (6647417) (hereinafter Hunter).

4. As per claim 1, as closely interpreted by the Examiner, Eyal teaches a method for caching streaming multimedia (SM), comprising:

5. calculating, at a content server that is hosting a plurality of SM objects, a server hotness rating for each SM object, said content server being connected to a plurality of helper server (HSs) in a network, each server hotness rating being a sum of helper hotness ratings over said HSs, each helper hotness rating being a local measure of client demand for each SM object, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63);

6. categorizing each SM object into one of a plurality of server hotness categories based on calculated server hotness rating, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63); and

7. pushing, from said content server to all HSs, said HSs caching each SM object for distribution to a plurality of clients, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63), but does not specifically teach pushing, from said content server to all HSs, a fraction of each SM object, each fraction being determined according to said server hotness category, said HSs caching said fractions of each SM object for distribution to a plurality of clients.

8. Hunter teaches pushing, from said content server to all HSs, a fraction of each SM object, each fraction being determined according to said server hotness category, said HSs caching said fractions of each SM object for distribution to a plurality of clients, (e.g., Fig. 2 *"Previewing"* & col. 8, lines 20 – 63 & col. 9, lines 25 – 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Hunter with Eyal because rating media data to the specification of a group of clients give the ability to transmit only a preview of the media if the client does not wish to listen or view all of the media which would use less bandwidth to only play a preview of the media, unless the client request, by rating, the media more often or wishes to download the media, then the bandwidth would then be fully utilized for said full download.

9. Claims 5 and 6 are rejected for similar reasons as stated above.

10. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyal and Hunter as applied to claim 5 above, and in further view of Saxena et al. (5805821) (hereinafter Saxena).

11. As per claim 7, as closely interpreted by the Examiner, Eyal and Hunter do not specifically teach a deterministic cache placement and replacement policy is implemented at the HSs. Saxena teaches a deterministic cache placement and replacement policy is implemented at the HSs, (e.g., col. 23, lines 1 – 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Saxena with the combine system of Eyal and Hunter because an important element of video delivery is that the data stream be delivered isochronously, that is without breaks and interruptions that a viewer or user would find objectionable.

12. As per claim 8, as closely interpreted by the Examiner, Eyal and Hunter do not specifically teach a random cache placement and replacement policy is implemented at the HSs. Saxena teaches a random cache placement and replacement policy is implemented at the HSs, (e.g., col. 23, lines 1 – 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Saxena with the combine system of Eyal and Hunter because of similar reasons stated above.

***Response to Arguments***

13. Applicant's arguments filed 11/28/2005 have been fully considered but they are not persuasive.

14. In the remarks, Applicant argues in substance that Eyal and hunter fails to teach or suggest the claimed content server that calculates a hotness rating for each streaming multimedia (SM) object, where the hotness rating is the sum of helper hotness ratings, i.e., the local demand at each helper server (HS).

15. The rating of Eyal is not the same as the claimed hotness rating that is the sum of the helper hotness rating, because, in Eyal, there is only one "back-end database management system 245" and only one "editor interface module 275", while in the claimed invention, a plurality of helper servers determine local demand that is summed into the claimed hotness rating.

16. Applicant further states that hunter's "tiers of transmission frequency" are based on demographic information, "standard customer profiles", and "customer preference information" that are determined by only one "central controller 36". Thus, the "tiers" of Hunter are not the same as the clamed hotness rating that is the sum of helper hotness ratings, because, in Eyal, there is only one "central controller", while in the claimed invention, a plurality of helper servers determine local demand that is summed into the claimed hotness rating.

17. As to part 1, Examiner would like to draw the Applicant's attention to the arguments disclosed above in light of the prior art. In which Hunter teaches, as stated by the Applicant "tiers of transmission frequency" which in light of the claimed invention can be interpreted as the plurality of helper hotness ratings which is the demand for SM objects. Furthermore, the claimed invention states **A** content server that is hosting a plurality of SM object. This can be

interpreted as the central controller that is disclosed in the prior art of Eyal or the "central controller 36" of Hunter. As seen in the Applicant's argument, it is clear that the prior art, interpreted in a different light then perceived, teaches the claimed invention.

18. In the remarks, Applicant argues in substance that claims 5 – 8 also are not taught by the prior art because of their similar claimed subject mater.

19. As to part 2, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
Examiner
Art Unit 2143

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